

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) Production line for the production of cast parts from a metallic melt, which takes place in a continuous cycle, comprising a plurality of functional units, including a core production unit for the production of casting cores, a mould assembly unit for assembling casting moulds formed as core packages, a casting unit for filling molten metal into the casting moulds, a cooling unit for cooling the molten metal respectively contained in the casting moulds, and a demoulding unit for destructive removal of the casting mould from a cast part, wherein the functional units successively passed through in each case are directly connected to each other by a respective conveying device, wherein the functional units are completed directly without interruption in a continuous flow and a first cycle time with which the ~~production line~~ ~~ejects-finished cast parts~~ are output is determined by ~~[[the]]~~ a second cycle time with which the ~~core production unit supplies the casting cores~~ are produced by the core production unit.

2. (Previously Presented) Production line according to Claim 1, wherein the core production unit comprises a transfer station for transferring finished cores to the mould assembly unit and a conveying device which conveys core shooting tools in a cycle from the transfer station to a core shooting station and then back to the transfer station.

3. (Previously Presented) Production line according to Claim 2, wherein the conveying device is constructed as a conveyor section, and the core production unit comprises more than one hardening station arranged along the conveyor section.

4. (Previously Presented) Production line according to Claim 1, wherein the core production unit comprises a device for automated changing of the product-specific core tools required for shooting the casting cores, and in that a third cycle time with which the change takes place is coupled to the second cycle time with which the core production unit supplies the casting cores produced by the core production unit.

5. (Previously Presented) Production line according to Claim 1, wherein the mould assembly unit comprises a take-over station with which the mould assembly unit takes over finished cores output by the core production device, and a conveying device which successively conveys the casting mould to be finished to the assembly stations.

6. (Previously Presented) Production line according to Claim 5, wherein the mould assembly unit comprises more than one assembly station, and in that the conveying device successively conveys the respective casting mould to be finished to the more than one assembly stations.

7. (Previously Presented) Production line according to Claim 1 further comprising a heating device for heating components to be cast into the cast part.

8. (Previously Presented) Production line according to Claim 7, wherein the heating device is integrated into the casting unit and the casting mould passes through the heating device in a fourth cycle time with the mould elements inserted in the casting mould.

9. (Previously Presented) Production line according to Claim 7, wherein the heating device operates inductively.

10. (Previously Presented) Production line according to Claim 1, wherein the casting unit comprises a rotary table which takes over the respective casting mould conveyed from the mould assembly unit to the casting unit at a first transfer station of the conveying device connecting the mould assembly unit to the casting unit, conveys the casting mould in a pivoting movement to a casting station, and after filling of the casting mould with melt in a controlled manner in the casting station, rotates the casting mould into a solidifying position and conveys the casting mould onward to a second transfer station at which the second transfer station transfers the respective casting mould to the conveying device leading to the cooling unit.

11. (Previously Presented) Production line according to Claim 1, wherein the cooling unit has a quenching station for quenching the cast part from a casting heat.

12. (Previously Presented) Production line according to Claim 1, wherein the demoulding unit comprises a liquid jet device for destroying the casting mould.

13. (Previously Presented) Production line according to Claim 12, wherein the liquid jet device is intended for washing the casting cores out of the cast part.

14. (Previously Presented) Production line according to Claim 1, wherein the demoulding unit comprises a basin that can be filled with liquid and into which the casting mould can be inserted.

15. (Previously Presented) Production line according to Claim 14, wherein a movement device for moving the casting mould immersed in the basin is associated with the liquid basin.

16. (Previously Presented) Production line according to Claim 1, wherein the cooling unit and the demoulding unit are united to form a combined quenching and demoulding unit.

17. (Currently Amended) Method for automatically producing cast mould parts from a molten metal, wherein the following working steps are passed though in a continuous production sequence:

- producing casting cores in a core production unit from a moulding material mixed from moulding basic material and a binder;
- transferring the casting cores to a mould assembly unit;
- assembling the casting cores to form a casting mould formed as a core package;
- transferring the casting mould to a casting unit;
- controlled mould filling of molten metal into the casting mould;
- transferring the casting mould filled with molten metal to a cooling unit;
- cooling the molten metal contained in the casting mould;
- transferring the casting mould with a cooled cast part to a demoulding unit;
- demoulding the cast part with destruction of the casting mould in the demoulding unit;
- quenching the cast part from a casting heat; and
- outputting a finished cast part
- wherein the functional units are completed directly without interruption in a continuous flow and a first cycle time with which the finished cast parts are output is determined by a second cycle time with which the casting cores are produced.

18. (Previously Presented) Method according to Claim 17, wherein the binder of the moulding material is an inorganic binder.

19. (Previously Presented) Method according to Claim 17, wherein the respective transfer comprises conveying from one unit to the next unit.

20. (Previously Presented) Method according to Claim 17, wherein, in the course of cooling, the casting mould is immersed in a basin filled with coolant.

21. (Previously Presented) Method according to Claim 20, wherein a strong relative movement is generated between casting mould and coolant.

22. (Previously Presented) Method according to Claim 17, wherein the casting is demoulded by means of a liquid which removes cohesion of the moulding material.

23. (Previously Presented) Method according to Claim 22, wherein the moulding material detached by the liquid is collected and supplied to a processing stage.